Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An exhaust gas purifying catalyst comprising:

a monolithic substrate;

a HC adsorbing layer for adsorbing hydrocarbons (HC), said HC absorbing layer containing zeolite and being formed on said monolithic substrate; and

a catalytic layer for producing hydrogen (H_2) and reducing NOx, said catalytic layer functioning to produce hydrogen (H_2) from at least one of hydrocarbons and carbon monoxide (CO) and to reduce nitrogen oxides (NOx) with the produced hydrogen and at least one of hydrocarbons and carbon monoxide in exhaust gas, said catalytic layer being formed on said HC adsorbing layer,

wherein exhaust gas to be brought into contact with said catalytic layer has a composition meeting a relation [(a concentration of hydrogen / a concentration of total reducing components) ≥ 0.3].

2. (Original) An exhaust gas purifying catalyst as claimed in Claim 1, wherein said exhaust gas purifying catalyst is for purifying exhaust gas discharged from an internal combustion engine, wherein said HC adsorbing layer contains zeolite and functions to adsorb hydrocarbons during a cold operation of the engine and to release adsorbed hydrocarbons during a warm-up operation of the engine, wherein said catalytic layer functions to produce hydrogen from hydrocarbons released from said HC adsorbing layer and from at least one of hydrocarbons and carbon monoxide discharged from the engine after the warm-up operation and to reduce NOx with produced hydrogen and at least hydrocarbons and carbon monoxide in exhaust gas.

3. (Currently Amended) An exhaust gas purifying catalyst as claimed in Claim 1, wherein said catalytic layer contains a ~~H2~~ H_2 producing catalyst component for functioning to produce hydrocarbons, and a NOx reducing catalyst component for functioning to reduce nitrogen oxides, said ~~H2~~ H_2 producing catalyst component being disposed on said HC adsorbing

layer and including a HC reforming catalyst component functioning to reform hydrocarbons so as to produce hydrogen and a CO reforming catalyst component functioning to make steam reforming of carbon monoxide, said HC reforming catalyst component containing cerium oxide carrying palladium, said CO reforming catalyst component containing zirconium oxide carrying rhodium.

4. (Currently Amended) An exhaust gas purifying catalyst as claimed in Claim ~~1~~ 3, wherein said catalytic layer further includes an upstream layer formed at an upstream section of said exhaust gas purifying catalyst, said upstream section being located upstream of said HC reforming catalyst component ~~layer~~ and said CO reforming catalyst component ~~layer~~ relative to flow direction of exhaust gas, said upstream layer containing alumina carrying palladium.

5. (Currently Amended) An exhaust gas purifying catalyst as claimed in Claim [1] 3, wherein said zirconium oxide carrying rhodium contains alkaline earth and has a composition represented by the following formula (A):

$$[X]_aZr_bO_c \ldots (A)$$

where X is an alkaline earth metal selected from the group consisting of magnesium, calcium, strontium and barium; a and b are ratios of atoms of elements; and c is a number of oxygen atoms required for satisfying valences of X and Zr, in which a is within a range of from 0.01 to 0.5, b is within a range of from 0.5 to 0.99, and a+b = 1.0.

6. (Currently Amended) An exhaust gas purifying catalyst as claimed in Claim ~~1~~ 4, wherein ~~a~~ said NOx reducing catalyst component functioning to reduce nitrogen oxides is contained in at least one of said HC adsorbing layer, said HC reforming ~~layer~~ catalyst component, said CO reforming ~~layer~~ catalyst component and said upstream layer containing alumina carrying palladium.

7. (Currently Amended) An exhaust gas purifying catalyst as claimed in Claim ~~1~~ 4, wherein ~~a~~ said NOx reducing catalyst component functioning to reduce nitrogen oxides is contained in at least one of said HC adsorbing layer, said HC reforming ~~layer~~ catalyst component, said CO reforming ~~layer~~ catalyst component and said upstream layer containing alumina carrying palladium, said NOx reducing catalyst component containing at least one

selected from the group consisting of palladium, platinum, rhodium, alumina, alkali metal and alkaline earth metal.

8. (Previously Amended) An exhaust gas purifying catalyst as claimed in Claim 1, wherein said zeolite contains H-type β-zeolite having a Si/2Al ratio ranging from 10 to 500.

9. (Previously Amended) An exhaust gas purifying catalyst as claimed in Claim 1, wherein said zeolite contains H-type β-zeolite and at least one of MFI, Y-type zeolite, USY-type zeolite and mordenite.

10. (Previously Amended) An exhaust gas purifying catalyst as claimed in Claim 1, wherein said zeolite contains at least one selected from the group consisting of palladium, magnesium, calcium, strontium, barium, silver, yttrium, lanthanum, cerium, neodymium, phosphorus, boron and zirconium.

11. (Currently Amended) An exhaust gas purifying catalyst as claimed in Claim ~~1~~ 4, wherein ~~a~~ said NOx reducing catalyst component functioning to reduce nitrogen oxides is contained in at least one of said HC adsorbing layer, said HC reforming ~~layer~~ catalyst component, said CO reforming ~~layer~~ catalyst component and said upstream layer containing alumina carrying palladium, said NOx reducing catalyst component containing at least one selected from the group consisting of alkali metal and alkaline earth metal, said NOx reducing catalyst component containing at least one selected from the group consisting of potassium, cesium, magnesium, calcium and barium.

12. (Original) An exhaust gas purifying catalyst as claimed in Claim 3, wherein said HC reforming catalyst component and said CO reforming catalyst are mixed to form a single layer disposed on said monolithic substrate on said HC adsorbing layer.

13. (Original) An exhaust gas purifying catalyst as claimed in Claim 3, wherein said HC reforming catalyst component forms a first layer disposed on said monolithic substrate, and said CO reforming catalyst forms a second layer, said second layer being formed on said first layer.

14. (Original) An exhaust gas purifying catalyst as claimed in Claim 3, wherein said HC reforming catalyst component forms a first layer disposed on said monolithic substrate,

and said CO reforming catalyst component forms a second layer, said second layer being formed downstream of said first layer relative to flow direction of exhaust gas.

15. (Original) An exhaust gas purifying system for an internal combustion engine, comprising:

an exhaust gas purifying catalyst including

a monolithic substrate,

a HC adsorbing layer for adsorbing hydrocarbons (HC), said HC absorbing layer being formed on said monolithic substrate, and

a catalytic layer for producing hydrogen (H_2) and reducing NOx, said catalytic layer functioning to produce hydrogen (H_2) from at least one of hydrocarbons and carbon monoxide (CO) and to reduce nitrogen oxides (NOx) with the produced hydrogen and at least one of hydrocarbons and carbon monoxide in exhaust gas, said catalytic layer being formed on said HC adsorbing layer; and

a device for controlling combustion in the engine to produce exhaust gas, to be brought into contact with said catalytic layer, having a composition meeting a relation [(a concentration of hydrogen / a concentration of total reducing components) $\geq$ 0.3].

16. (Currently Amended) A method of producing an exhaust gas purifying catalyst, comprising:

preparing a monolithic substrate;

forming a HC adsorbing layer on said monolithic layer, to adsorb hydrocarbons (HC); and

forming a catalytic layer on said HC adsorbing layer, to produce hydrogen (H_2) and reduce NOx, said catalytic layer functioning to produce hydrogen (H_2) from at least one of hydrocarbons and carbon monoxide (CO) and to reduce nitrogen oxides (NOx) with the produced hydrogen and at least one of hydrocarbons and carbon monoxide in exhaust gas layer,

wherein exhaust gas to be brought into contact with said catalytic layer has a composition meeting a relation [(a concentration of hydrogen / a concentration of total reducing components) ≥ 0.3].

17. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 15, wherein said exhaust gas purifying catalyst is for purifying exhaust gas discharged from an internal combustion engine, wherein said HC adsorbing layer contains zeolite and functions to adsorb hydrocarbons during a cold operation of the engine and to release adsorbed hydrocarbons during a warm-up operation of the engine, wherein said catalytic layer functions to produce hydrogen from hydrocarbons released from said HC adsorbing layer and from at least one of hydrocarbons and carbon monoxide discharged from the engine after the warm-up operation and to reduce NOx with produced hydrogen and at least hydrocarbons and carbon monoxide in exhaust gas.

18. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 15, wherein said catalytic layer contains a H_2 producing catalyst component for functioning to produce hydrocarbons, and a NOx reducing catalyst component for functioning to reduce nitrogen oxides, said H_2 producing catalyst component being disposed on said HC adsorbing layer and including a HC reforming catalyst component functioning to reform hydrocarbons so as to produce hydrogen and a CO reforming catalyst component functioning to make steam reforming of carbon monoxide, said HC reforming catalyst component containing cerium oxide carrying palladium, said CO reforming catalyst component containing zirconium oxide carrying rhodium.

19. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 18, wherein said catalytic layer further includes an upstream layer formed at an upstream section of said exhaust gas purifying catalyst, said upstream section being located upstream of said HC reforming catalyst component and said CO reforming catalyst component relative to flow direction of exhaust gas, said upstream layer containing alumina carrying palladium.

20. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 18, wherein said zirconium oxide carrying rhodium contains alkaline earth and has a composition represented by the following formula (A):

$[X]_aZr_bO_c$ ... (A)

where X is an alkaline earth metal selected from the group consisting of magnesium, calcium, strontium and barium; a and b are ratios of atoms of elements; and c is a number of oxygen atoms required for satisfying valences of X and Zr, in which a is within a range of from 0.01 to 0.5, b is within a range of from 0.5 to 0.99, and a+b = 1.0.

21. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 19, wherein said NOx reducing catalyst component functioning to reduce nitrogen oxides is contained in at least one of said HC adsorbing layer, said HC reforming catalyst component, said CO reforming catalyst component and said upstream layer containing alumina carrying palladium.

22. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 19, wherein said NOx reducing catalyst component functioning to reduce nitrogen oxides is contained in at least one of said HC adsorbing layer, said HC reforming catalyst component, said CO reforming catalyst component and said upstream layer containing alumina carrying palladium, said NOx reducing catalyst component containing at least one selected from the group consisting of palladium, platinum, rhodium, alumina, alkali metal and alkaline earth metal.

23. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 15, wherein said zeolite contains H-type β-zeolite having a Si/2Al ratio ranging from 10 to 500.

24. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 15, wherein said zeolite contains H-type β-zeolite and at least one of MFI, Y-type zeolite, USY-type zeolite and mordenite.

25. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 15, wherein said zeolite contains at least one selected from the group consisting of palladium, magnesium, calcium, strontium, barium, silver, yttrium, lanthanum, cerium, neodymium, phosphorus, boron and zirconium.

26. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 19, wherein said NOx reducing catalyst component functioning to reduce nitrogen oxides is contained in at least one of said HC adsorbing layer, said HC reforming catalyst component, said CO reforming catalyst component and said upstream layer containing alumina carrying palladium, said NOx reducing catalyst component containing at least one selected from the group consisting of alkali metal and alkaline earth metal, said NOx reducing catalyst component containing at least one selected from the group consisting of potassium, cesium, magnesium, calcium and barium.

27. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 18, wherein said HC reforming catalyst component and said CO reforming catalyst are mixed to form a single layer disposed on said monolithic substrate on said HC adsorbing layer.

28. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 18, wherein said HC reforming catalyst component forms a first layer disposed on said monolithic substrate, and said CO reforming catalyst forms a second layer, said second layer being formed on said first layer.

29. (New) An exhaust gas purifying system for an internal combustion engine as claimed in Claim 18, wherein said HC reforming catalyst component forms a first layer disposed on said monolithic substrate, and said CO reforming catalyst component forms a second layer, said second layer being formed downstream of said first layer relative to flow direction of exhaust gas.

30. (New) A method comprising:

providing an exhaust gas purifying catalyst, the exhaust gas purifying catalyst comprising:

a monolithic substrate;

a HC adsorbing layer for adsorbing hydrocarbons (HC), said HC absorbing layer containing zeolite and being formed on said monolithic substrate; and

a catalytic layer for producing hydrogen (H_2) and reducing NOx, said catalytic layer functioning to produce hydrogen (H_2) from at least one of hydrocarbons and carbon monoxide (CO) and to reduce nitrogen oxides (NOx) with the produced hydrogen and at least one of hydrocarbons and carbon monoxide in exhaust gas, said catalytic layer being formed on said HC adsorbing layer; and

supplying exhaust gas to contact said catalytic layer, the exhaust gas having a composition meeting a relation [(a concentration of hydrogen / a concentration of total reducing components) ≥ 0.3].

Applicant believes that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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By _____

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